

Remarks/Arguments

The Office Action of September 29, 2005 and the references cited therein have been carefully studied and reviewed, and in view of the foregoing Amendment and following representations, reconsideration is respectfully requested.

The specification has been amended to correct minor errors.

Claims 1 and 10 have each been amended so as to more clearly patentably distinguish the present invention over the references to Yoshioka et al. (US Patent Pub. No. 2002/0027080), Kitano et al. (US Patent Pub. No. 2002/0214798), and Schiele (USP 5,931,173).

More specifically, the present invention is drawn to a wet cleaning or etching facility in which the cleaning or etching process is enhanced by **preventing bubbles from affecting the cleaning or etching process**. In this respect, each of claims 1 and 10 has been amended to recite that the chemical bath 110, 120 and/or 130 with which the bubble-detecting sensor 140 is associated is a cleaning or etching bath comprising a vessel containing a chemical solution selected from the group consisting of a solution comprising ammonia, hydrogen peroxide and water, a solution comprising hydrochloric acid, hydrogen peroxide and water, and a solution comprising sulfuric acid and hydrogen peroxide (see paragraph [0075] of Applicant's original specification).

Yoshioka et al. disclose a facility having a pre-soaking bath 28 comprising a vessel and a hydrochloric or sulfuric acid solution contained in the vessel for etching a

substrate, a rinsing bath 30a, a drying unit 32, and a robot arm 42 having a working envelope encompassing the pre-soaking bath 28, the rinsing bath 30a and the drying unit 32. However, the pre-soaking bath 28 is different from Applicant's claimed chemical bath. First, the hydrochloric or acid solution of the bath is different from Applicant's claimed chemical solution. More importantly, though, there is no bubble detecting sensor associated with the bath 28 for detecting bubbles in the hydrochloric or sulfuric acid solution.

Yoshioka et al. also disclose a plating bath 34 comprising a vessel 38 and plating liquid Q, namely, a copper sulfate solution, contained in the vessel 38. Yoshioka et al. also disclose a dissolved oxygen concentration measuring unit 340 operatively associated with the plating bath 34. However, unlike Applicant's claimed invention, the plating bath 34 is not a cleaning or etching bath. In particular, the bath 34 does not contain a cleaning or etching solution selected from the group now specified in claims 1 and 10.

Accordingly, Yoshioka et al. do not anticipate claims 1 and 10 under 35 USC 102.

The apparatus disclosed by Kitano et al. is fundamentally different from Applicant's claimed invention. Whereas Applicant's invention is drawn to a facility for wet etching or cleaning substrates, the facility disclosed by Kitano et al. is for coating substrates with a thin film, such as a resist. This fundamental difference manifests itself in the claims in several respects.

First, although the facility of Kitano et al. does include a processing unit 17 comprising a vessel 61 having an open top, the vessel 61 does not constitute a chemical bath, i.e., it does not contain a chemical solution in which the substrates are immersed. In particular, the vessel does not contain a chemical solution selected from the group now specified in Applicant's claims.

Secondly, Applicant's claims also now recite the final rinse bath 160. Clearly, the resist film-forming facility of Kitano et al. does not have such a rinse bath.

Kitano et al. do disclose a bubble detecting sensor 100, 101 associated with the nozzle 85 for spraying the resist onto a substrate supported in the vessel 61. However, even assuming, *arguendo*, that one of ordinary skill in the art were somehow motivated to modify the sensor 100, 101 of Kitano et al. in view of the teachings of Schiele, the resulting combination would still not meet Applicant's claims as such a resulting combination would still lack at least an etching or cleaning bath comprising a vessel and a chemical solution selected from the group set forth in Applicant's claims, and a final rinse bath.

Accordingly, the references to Katano et al. and Schiele can not render Applicant's claims obvious under 35 USC 103.

For these reasons, namely because of the differences between Applicant's invention, as is now claimed, and the references, including the lack of disclosure or suggestion in the references of a wet processing facility in which a bubble detecting sensor is operatively associated with a chemical etching or cleaning bath, it is seen

that the references do not anticipate Applicant's claims under 35 USC 102 or render Applicant's claims obvious under 35 USC 103. Accordingly, early reconsideration and allowance of the claims are respectfully requested.

Respectfully submitted,

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